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Request for Continued Examination (RCE) Transmittal

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Application Number	10/084,879
Filing Date	October 18, 2001
First Named Inventor	Georgios Karagiannis
Art Unit	2155
Examiner Name	Michael young Won
Attorney Docket Number	P15234US2

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. **Submission required under 37 CFR 1.114** Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

a. ☒ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

ii. ☒ Other REPLY UNDER 37 C.F.R. § 1.116 dated January 9, 2006

b. ☐ Enclosed

i. ☐ Amendment/Reply

iii. ☐ Information Disclosure Statement (IDS)

ii. ☐ Affidavit(s)/ Declaration(s)

iv. ☐ Other _____

2. Miscellaneous

a. ☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

b. ☐ Other _____

3. Fees

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments, to Deposit Account No. 50-1379. I have enclosed a duplicate copy of this sheet.

i. ☒ RCE fee required under 37 CFR 1.17(e)

ii. ☐ Extension of time fee (37 CFR 1.136 and 1.17)

iii. ☐ Other _____

b. ☐ Check in the amount of \$ _____ enclosed

c. ☐ Payment by credit card (Form PTO-2038 enclosed)

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Signature	<i>Sidney L. Weatherford</i>	Date	February 8, 2006
Name (Print/Type)	Sidney L. Weatherford	Registration No	45,602

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Signature	<i>Melissa Wingo</i>
Name (Print/Type)	Melissa Wingo
Date	February 8, 2006

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Georgios Karagiannis, §
et al. §

Serial No: 10/084,879 §

Filed: October 18, 2001 §
§
§

Attorney Docket No: P15234-US2
Customer No.: 27045

Group Art Unit: 2155

Examiner: Won, Michael
Young

Confirmation No: 7269

For: Seamless Handoff in Mobile IP

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Date: January 9, 2006

Name: Melissa Wingo

Signature: Melissa Wingo

Dear Examiner:

REPLY UNDER 37 C.F.R §1.116

In response to the Office Action of November 9, 2005, the Applicants (or collectively "the Applicant") request that the claims be amended to place the application in condition for allowance.

Please cancel Claim 32 without prejudice.

Claims 1, 3, 22, 36, and 42 have been amended and begin on page 1 of this paper.

Remarks/Arguments begin on page 17 of this paper.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of seamlessly handing off a mobile node from an old sub-network router to a new sub-network router in an Internet Protocol based wireless access network, comprising:

obtaining a handoff starting time from a lower layer complying with Open Systems Interconnections (OSI) model;

using information from the lower layer of the OSI model to notify the mobile node that a connection with the old sub-network router will be discarded within a predetermined amount of time;

obtaining a new care-of address for the mobile node from the new sub-network router;

sending a request message from the mobile node to a base node via the new sub-network router requesting a new binding;

creating a new care-of address binding in the base node;

issuing two registration reply messages ~~a reply message~~ from the base node to the mobile node wherein a registration reply message is sent to the new care-of address via the new sub-network router indicating that the new care-of address binding has been created and a deregistration reply message is sent to the old care-of address via the old sub-network router notifying the mobile node that binding with the old care-of address has been removed; and

synchronizing a transfer of old care-of address data packets from the base node to the mobile node.

2. (Original) The method according to claim 1, wherein the request message is a mobile node registration request message and the reply message is a mobile node registration reply message.

3. (Currently Amended) The method according to claim 2, wherein the base node is a home agent and the mobile node is capable of accessing two sub-networks simultaneously, the synchronizing step comprising:

deleting an old care-of address binding from the home agent; and
~~issuing a deregistration reply message from the home agent to the mobile node via the old sub-network router indicating that the old care-of address binding has been deleted.~~

4. (Previously Presented) The method according to claim 3, wherein the mobile node does not receive the deregistration reply message before a predetermined time, the synchronizing step further comprising:

sending a binding update message from the mobile node to the old sub-network router;

creating a binding cache entry in the old sub-network router linking the old care-of address to the new care-of address;

issuing a binding acknowledgment message from the old sub-network router to the mobile node via the new sub-network router; and

forwarding old care-of address data packets stored or arriving at the old sub-network router to the new care-of address.

5. (Previously Presented) The method according to claim 2, wherein the base node is a home agent and the mobile node is capable of accessing only a single sub-network at a time, the synchronizing step comprising:

sending a binding update message from the mobile node to the old sub-network router;

creating a binding cache entry in the old sub-network router linking the old care-of address to the new care-of address;

issuing a binding acknowledgment message from the old sub-network router to the mobile node via the new sub-network router;

forwarding old care-of address data packets stored or arriving at the old sub-network router to the new care-of address;

deleting an old care-of address binding from the home agent; and

issuing a deregistration reply message from the home agent to the mobile node via the old sub-network router indicating that the old care-of address binding has been deleted.

6. (Original) The method according to claim 2, wherein a route optimization function is used, the base node is a home agent, and the mobile node is capable of accessing two sub-networks simultaneously, the synchronizing step comprising:

sending a deregistration binding update message from the mobile node to a correspondent node via the old sub-network router;

deleting an old care-of address binding from the correspondent node;

issuing a deregistration binding acknowledgment message from the correspondent node to the mobile node via the old sub-network router;

sending a binding update message from the home agent to the correspondent node; and

creating a new care-of address binding in the correspondent node.

7. (Previously Presented) The method according to claim 6, wherein the mobile node does not receive the deregistration binding acknowledgment message before the old wireless sub-network has deteriorated beyond a certain point, the synchronizing step further comprising:

sending a binding update message from the mobile node to the old sub-network router;

creating a binding cache entry in the old sub-network router linking the old care-of address to the new care-of address;

issuing a binding acknowledgment message from the old sub-network router to the mobile node via the new sub-network router; and

forwarding old care-of address data packets stored or arriving at the old sub-network router to the new care-of address.

8. (Previously Presented) The method according to claim 2, wherein a route optimization function is used, the base node is a home agent, and the mobile node is capable of accessing only a single sub-network at a time, the synchronizing step comprising:

sending a binding update message from the mobile node to the old sub-network router;

creating a binding cache entry in the old sub-network router linking the old care-of address to the new care-of address;

issuing a binding acknowledgment message from the old sub-network router to the mobile node via the new sub-network router;

forwarding old care-of address data packets stored or arriving at the old sub-network router to the new care-of address;

sending a binding update message from the home agent to a correspondent node; and

creating a new care-of address binding in the correspondent node.

9. (Original) The method according to claim 2, wherein the base node is a gateway foreign agent and the mobile node is capable of accessing two sub-networks simultaneously, the synchronizing step comprising:

deleting an old care-of address binding from the gateway foreign agent; and

issuing a deregistration reply message from the gateway foreign agent to the mobile node via the old sub-network router indicating that the old care-of address binding has been deleted.

10. (Previously Presented) The method according to claim 9, wherein the mobile node does not receive the deregistration binding acknowledgment message before a predetermined time, the synchronizing step further comprising:

sending a binding update message from the mobile node to the old sub-network router;

creating a binding cache entry in the old sub-network router linking the old care-of address to the new care-of address;

issuing a binding acknowledgment message from the old sub-network router to the mobile node via the new sub-network router; and

forwarding old care-of address data packets stored or arriving at the old sub-network router to the new care-of address.

11. (Previously Presented) The method according to claim 2, wherein the base node is a gateway foreign agent, and the mobile node is capable of accessing only a single sub-network at a time, the synchronizing step comprising:

sending a binding update message from the mobile node to the old sub-network router;

creating a binding cache entry in the old sub-network router linking the old care-of address to the new care-of address;

issuing a binding acknowledgment message from the old sub-network router to the mobile node via the new sub-network router;

forwarding old care-of address data packets stored or arriving at the old sub-network router to the new care-of address;

deleting an old care-of address binding from the gateway foreign agent; and

issuing a deregistration reply message from the gateway foreign agent to the mobile node via the old sub-network router indicating that the old care-of address binding has been deleted.

12. (Original) The method according to claim 1, wherein the request message is a binding update message and the reply message is a binding acknowledgment message.

13. (Original) The method according to claim 12, wherein the base node is a home agent and the mobile node is capable of accessing two sub-networks simultaneously, the synchronizing step comprising issuing:

- sending a deregistration binding update message from the mobile node to the home agent via the old sub-network router;

- deleting an old care-of address binding from the home agent; and

- sending a deregistration reply message from the home agent to the mobile node via the old sub-network router indicating that the old care-of address binding has been deleted.

14. (Previously Presented) The method according to claim 13, wherein the mobile node does not receive the deregistration reply message before the old wireless sub-network has badly deteriorated beyond a certain point, the synchronizing step further comprising:

- sending a binding update message from the mobile node to the old sub-network router;

- creating a binding cache entry in the old sub-network router linking the old care-of address to the new care-of address;

- issuing a binding acknowledgment message from the old sub-network router to the mobile node via the new sub-network router; and

- forwarding old care-of address data packets stored or arriving at the old sub-network router to the new care-of address.

15. (Previously Presented) The method according to claim 12, wherein the base node is a home agent and the mobile node is capable of accessing only a single sub-network at a time, the synchronizing step comprising:

- sending a binding update message from the mobile node to the old sub-network router;

- creating a binding cache entry in the old sub-network router linking the old care-of address to the new care-of address;

issuing a binding acknowledgment message from the old sub-network router to the mobile node via the new sub-network router;

forwarding old care-of address data packets stored or arriving at the old sub-network router to the new care-of address;

sending a deregistration binding update message from the mobile node to the home agent via the old sub-network router;

deleting an old care-of address binding from the gateway foreign agent; and

issuing a deregistration reply message from the gateway foreign agent to the mobile node via the old sub-network router indicating that the old care-of address binding has been deleted.

16. (Original) The method according to claim 12, wherein a route optimization function is used, the base node is a home agent, and the mobile node is capable of accessing two sub-networks simultaneously, the synchronizing step comprising:

sending a deregistration binding update message from the mobile node to a correspondent node via the old sub-network router;

deleting an old care-of address binding in the correspondent node;

issuing a deregistration binding acknowledgment message from correspondent node to the mobile node via the old sub-network router;

sending a binding update message from the mobile node to the correspondent node via the new sub-network router;

creating a new care-of address binding in the correspondent node; and

issuing a binding acknowledgment message from the correspondent node to the mobile node via the new sub-network router.

17. (Previously Presented) The method according to claim 16, wherein the mobile node does not receive the deregistration binding acknowledgment message before the old wireless sub-network has deteriorated beyond a certain point, the synchronizing step further comprising:

sending a binding update message from the mobile node to the old sub-network router;

creating a binding cache entry in the old sub-network router linking the old care-of address to the new care-of address;

issuing a binding acknowledgment message from the old sub-network router to the mobile node via the new sub-network router; and

forwarding old care-of address data packets stored or arriving at the old sub-network router to the new care-of address.

18. (Previously Presented) The method according to claim 12, wherein a route optimization function is used, the base node is a home agent, and the mobile node is capable of accessing only a single sub-network at a time, the synchronizing step comprising:

sending a binding update message from the mobile node to the old sub-network router;

creating a binding cache entry in the old sub-network router linking the old care-of address to the new care-of address;

issuing a binding acknowledgment message from the old sub-network router to the mobile node via the new sub-network router;

forwarding old care-of address data packets stored or arriving at the old sub-network router to the new care-of address;

sending a binding update message from the mobile node to the correspondent node via the new sub-network router;

creating a new care-of address binding in the correspondent node; and

issuing a binding acknowledgment message from the correspondent node to the mobile node via the new sub-network router.

19. (Original) The method according to claim 12, wherein the base node is a mobility anchor point and the mobile node is capable of accessing two sub-networks simultaneously, the synchronizing step comprising:

sending a deregistration binding update message from the mobile node to the mobility anchor point via the old sub-network router;

deleting an old care-of address binding from the mobility anchor point; and

issuing a deregistration binding acknowledgment message from the mobility anchor point to the mobile node via the old sub-network router.

20. (Previously Presented) The method according to claim 19, wherein the mobile node does not receive the deregistration binding acknowledgment before the old wireless sub-network has deteriorated beyond a certain point, the synchronizing step further comprising:

sending a binding update message from the mobile node to the old sub-network router;

creating a binding cache entry in the old sub-network router linking the old care-of address to the new care-of address;

issuing a binding acknowledgment message from the old sub-network router to the mobile node via the new sub-network router; and

forwarding old care-of address data packets stored or arriving at the old sub-network router to the new care-of address.

21. (Previously Presented) The method according to claim 12, wherein the base node is a gateway foreign agent, and the mobile node is capable of accessing only a single sub-network at a time, the synchronizing step comprising:

sending a binding update message from the mobile node to the old sub-network router;

creating a binding cache entry in the old sub-network router linking the old care-of address to the new care-of address;

issuing a binding acknowledgment message from the old sub-network router to the mobile node via the new sub-network router;

forwarding old care-of address data packets stored or arriving at the old sub-network router to the new care-of address;

sending a deregistration binding update message from the mobile node to the mobility anchor point via the old sub-network router;

deleting an old care-of address binding from the mobility anchor point; and

issuing a deregistration binding acknowledgment message from the mobility anchor point to the mobile node via the old sub-network router.

22. (Currently Amended) An Internet Protocol based wireless access network, comprising:

a lower layer complying with Open Systems Interconnections (OSI) model wherein a handoff starting time is obtained;

a mobile node adapted to obtain a new care-of address from a new sub-network router and to issue a request message via the new sub-network router requesting a new binding upon being notified from the lower layer of the OSI model that a connection with an old sub-network router will be discarded within a predetermined amount of time; and

a base node adapted to create the new care-of address binding upon receiving the request message from the mobile node and to issue a reply message to the mobile node via the new sub-network router indicating that the new care-of address binding has been created, wherein the base node is adapted to delete an old care-of address binding therefrom upon receiving a deregistration rerequest message and issue a deregistration binding acknowledgment message to the mobile node via the old sub-network router indicating that the old care-of address binding has been deleted; and

~~wherein~~ the mobile node and the base node are further adapted to transfer old care-of address data packets from the base node to the mobile node in a synchronized manner.

23. (Original) The network according to claim 22, wherein the request message is a mobile node registration request message and the reply message is a mobile node registration reply message.

24. (Original) The network according to claim 22, wherein the request message is a binding update message and the reply message is a binding acknowledgment message.

25. (Original) The network according to claim 22, wherein a route optimization function is used.

26. (Original) The network according to claim 22, wherein the mobile node is capable of accessing two sub-networks simultaneously.

27. (Original) The network according to claim 22, wherein the mobile node is capable of accessing only a single sub-network at a time.

28. (Original) The network according to claim 22, wherein the base node is a home agent.

29. (Original) The network according to claim 22, wherein the base node is a gateway foreign agent.

30. (Original) The network according to claim 22, wherein the base node is a mobility anchor point.

31. (Original) The network according to claim 22, wherein the base node is further adapted to delete an old care-of address binding and issue a deregistration reply message to the mobile node via the old sub-network router indicating that the old care-of address binding has been deleted.

32. (Canceled)

33. (Previously Presented) The network according to claim 22, wherein the mobile node is further adapted to send a binding update message to the old sub-

network router, and the old sub-network router is adapted to create a binding cache entry linking the old care-of address to the new care-of address, issue a binding acknowledgment message to the mobile node via the new sub-network router, and forward old care-of address data packets stored or arriving thereat to the new care-of address.

34. (Original) The network according to claim 22, wherein the mobile node is further adapted to send a deregistration binding update message to a correspondent node via the old sub-network router, and the correspondent node is adapted to delete an old care-of address binding therefrom, and issue a deregistration binding acknowledgment message to the mobile node via the old sub-network router.

35. (Original) The network according to claim 22, wherein the base node is further adapted to send a binding update message to a correspondent node, and the correspondent node is adapted to create a new care-of address binding therein.

36. (Currently Amended) A method of handing off a mobile node from an old sub-network router to a new sub-network router in an Internet Protocol based wireless access network, comprising:

- obtaining a handoff starting time from a lower layer complying with Open Systems Interconnection (OSI) model;

- using information from the lower layer of the OSI model to notify the mobile node that a connection with the old sub-network router will be discarded within a predetermined amount of time;

- obtaining a new care-of address for the mobile node from the new sub-network router;

- sending a request message from the mobile node to a base node via the new sub-network router requesting a new binding, the base node being predetermined one of a home agent, a gateway foreign agent, and a mobility anchor point;

- creating a new care-of address binding in the base node;

- issuing two messages from the base node to the mobile node;

a registration reply message ~~from the base node to the mobile node~~ via the new sub-network router indicating that the new care-of address binding has been created and
a deregistration reply message via the old sub-network router indicating that the old care-of address binding has been deleted; and
synchronizing a transfer of old care-of address data packets from the base node to the mobile node.

37. (Original) The method according to claim 36, wherein the request message is a mobile node registration request message and the reply message is a mobile node registration reply message.

38. (Original) The method according to claim 36, wherein the request message is a binding update message and the reply message is a binding acknowledgment message.

39. (Original) The method according to claim 36, wherein a route optimization function is used.

40. (Original) The method according to claim 36, wherein the mobile node is capable of accessing two sub-networks simultaneously.

41. (Original) The method according to claim 36, wherein the mobile node is capable of accessing only a single sub-network at a time.

42. (Currently Amended) The method according to claim 36, wherein the synchronization step further comprises:

deleting an old care-of address binding from the base node; ~~and~~
~~issuing a deregistration reply message from the base node to the mobile node via the old sub-network router indicating that the old care-of address binding has been deleted.~~

43. (Original) The method according to claim 36, wherein the synchronization step comprises:

- sending a deregistration binding update message from the mobile node to the base node via the old sub-network router;

- deleting an old care-of address binding from the base node; and

- issuing a deregistration binding acknowledgment message from the base node to the mobile node via the old sub-network router indicating that the old care-of address binding has been deleted.

44. (Previously Presented) The method according to claim 36, wherein the synchronization step comprises:

- sending a binding update message from the mobile node to the old sub-network router;

- creating a binding cache entry in the old sub-network router linking the old care-of address to the new care-of address;

- issuing a binding acknowledgment message from the old sub-network router to the mobile node via the new sub-network router; and

- forwarding old care-of address data packets stored or arriving at the old sub-network router to the new care-of address.

45. (Original) The method according to claim 36, wherein the synchronization step comprises:

- sending a deregistration binding update message from the mobile node to a correspondent node via the old sub-network router;

- deleting an old care-of address binding from the correspondent node; and

- issuing a deregistration binding acknowledgment message from the correspondent node to the mobile node via the old sub-network router.

46. (Original) The method according to claim 36, wherein the synchronization step comprises:

sending a binding update message from the base node to a correspondent node;
and
creating a new care-of address binding in the correspondent node.

REMARKS/ARGUMENTS

Claim Amendments

The Applicant has amended claims 1, 3, 22, 36, and 42; claim 32 has been canceled. Support for the amendments is found in paragraphs [084] and [091]. Applicant respectfully submits no new matter has been added. Accordingly, claims 1-46 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

Claim Rejections – 35 U.S.C. § 103 (a)

Claims 1-46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee (US 6,539,225B1) in view of Tiedemann, Jr. et al, et al. (US 5,870,427A) and C. E. Perkins et al. "Route Optimization in Mobile IP", draft-ietf-mobileip-optim-08.txt (Feb. 25, 1999). Claim 32 has been canceled without prejudice. The Applicant respectfully traverses the rejection of these claims.

The present application discloses and claims a method for handing off a mobile node from an old sub-network router to a new sub-network router in an Internet Protocol based wireless access network and a respective wireless access network. In that regard a handoff starting time is obtained from a lower layer of the OSI (Open Systems Interconnection) model and information from a lower layer of the OSI model is used to notify the mobile node that a connection with the old sub-network router will be discarded within a predetermined amount of time. In accordance with the teachings of the present invention a new care-of address is obtained for the mobile node from the new sub-network router and in response to receiving the discarding notification, a request message is sent from the mobile node to a base node via the new sub-network router requesting a new binding. A new care-of address binding is then created in the base node, a reply message is issued from the base node to the mobile node via the new sub-network router indicating that the new care-of address binding has been created and a transfer of old care-of address data packets from the base node to the mobile node is synchronized.

The Lee reference appears to disclose a wireless call handoff with respect to deregistration of an old binding and creating a new binding. Lee discloses providing a seamless handover by providing an old and a new address binding in parallel during the handover procedure. As noted in the Detailed Action, column 4, lines 66-67 of the Lee reference describes a state of the art routing technique and is not related to obtaining any kind of timing information. There is no mention or teaching in the Lee reference regarding obtaining a handoff starting time from a lower layer and using information from a lower layer to notify a mobile terminal that an old connection will be discarded within a predetermined amount of time.

The Lee reference is cited for teaching deleting an old care-of address binding from the home agent and issuing a deregistration reply message from the home agent to the mobile node via the old sub-network indicating that the old care-of address binding has been deleted (see rejection of claim 3). The element at issue, from amended claim 1, is shown below.

...issuing two registration reply messages from the base node to the mobile node wherein a registration reply message is sent to the new care-of address via the new sub-network router indicating that the new care-of address binding has been created and a deregistration reply message is sent to the old care-of address via the old sub-network router notifying the mobile node that binding with the old care-of address has been removed (emphasis added)

The Applicant has reviewed the cited portion of Lee and respectfully disagrees with the interpretation of the content. The Applicant reads the passage that the home agent does not immediately terminate the old binding but continues to maintain both bindings and duplicates the communication content ... until the handoff procedure has completed and then the old foreign agent is deregistered by the home agent (Col.5, lines 36-43, Col. 5, lines 67- col. 6, lines1-3). The claim by the Applicant states that the old binding is deregistered using a deregistration reply message (paragraph [091]). There are two registration reply messages sent (one being a deregistration message) as indicated in the claim. The claim does not set a time between sending the first and second message. However, as noted in paragraph [091] the statement, "In response, the home agent or gateway foreign agent creates the new binding and sends two

registration reply messages to the mobile node..." indicates that the registration replies are sent either simultaneously or one soon after the other. In Lee, the statement that the old binding is continued until at least the handoff procedure has completed indicates that the messages are not sent simultaneously or one after the other. The advantage received from sending the two messages one after the other is that the handoff takes place quickly and because of the synchronization of the transfer, no data packets are lost. This being the case, the Lee reference lacks the limitation of sending two registration messages as described in paragraph [091].

The Tiedemann reference is cited for obtaining a handoff starting time. The cited portion of Tiedemann states that a command is received over the analog channel specifying an exact handoff time." (col 8, lines 43-47). The Applicant respectfully submits that an exact handoff time is different from a handoff starting time. As disclosed in the Tiedemann reference, the exact handoff time command is sent after the mobile station is instructed to begin time alignment (this is preliminary to the handoff command). (col. 8, lines 33-47) Tiedemann lacks the step of obtaining the starting time from a lower layer e.g., layer 2 of the OSI model (paragraph [086]).

The Lee reference and the Tiedemann both lack sending two messages, including a deregistration message (as described above) to the mobile node. Also, both Lee and Tiedemann lack the step of obtaining the handoff starting time from a lower layer complying with the OSI model. This being the case, the Applicant respectfully requests the withdrawal of the rejection of claim.

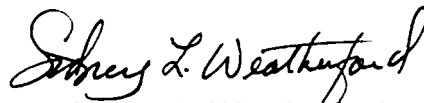
Claims 22 and 36 are analogous to claim 1 and contain similar limitations. The Applicant respectfully requests the withdrawal of the rejection of these amended claims. Claims 2-21, 23-35 and 37 -46 depend from the amended independent claims and recite further limitations in combination with the novel elements of the respective independent claims. The allowance of claims 1-31 and 33-46 is respectfully requested.

CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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